

Serial No. 07/436,465

DISCUSSION

Applicant wishes to thank the Examiner for the very kind and courteous telephone interview granted Applicant's attorney on 27 February 1992. The attached Declaration by Applicant is believed to be in compliance with the understanding reached at the interview.

The Rejection

The basic rejection of Applicant's claims is stated in paragraph six of the Final Rejection. The rejection is based on the Green reference. As the Examiner states: "Applicant's Claim 13 (the only independent claim) is deemed to be open to Green's chlorofluoroethane fire extinguishing agents which are required by Green." The Examiner further states: "These (chlorofluoroethane) agents of Green's do not materially change the nature of Applicant's composition...Applicant's claims have no percentage concentration range (or anything else) that might establish unobviousness if accompanied by data showing superior and unexpected results."

The Declaration

The Green reference requires the presence, in the fire extinguishing composition, of 50-98% of a higher boiling fluorocarbon such as a chlorofluoroethane or a chlorofluoromethane. In the Declaration, Applicant has attempted to compare the fire extinguishing performance and the ozone depletion potential of at least one composition falling within the disclosure of the Green reference to at least one composition falling within Applicant's claims.

1. Fire Extinguishing Performance

a. In the Declaration, Applicant discloses the results of tests for fire extinguishing performance using compositions containing no chlorodifluoromethane and 100 weight percent and 75 weight percent of pentafluoroethane, respectively, in experiments (a) and (b); 25 weight percent of chlorodifluoromethane and 45 weight percent pentafluoroethane in experiment (c); and 100 weight percent chlorodifluoromethane in experiment (d).

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b. Experiments (a) and (b) provided fire extinguishing performance substantially equal to the fire extinguishing performance when 25 weight percent of CHF_2Cl was present in the composition; and substantially better performance when 100 weight percent CHF_2Cl was used as the composition.

c. Applicant concluded that the fire extinguishing performance of the compositions covered by Claim 13 would be equal to, probably superior to, the performance obtained using 50-98% of a chlorofluorocarbon and pentafluoroethane as the remainder in the composition as disclosed in the Green reference.

2. Ozone Depletion Potential

a. The Examiner is referred to the Table at column 6, lines 33 ff. of the Green reference. The "ozone impact" or ozone depletion potential for chlorodifluoromethane (the chlorofluorocarbon tested by Applicant) and for two of Green's preferred chlorofluorocarbons, 1,1-dichloro-2,2,2-trifluoroethane and 1,2-dichloro-2,2-difluoroethane, are listed at 0.05; whereas Applicant's preferred compounds, pentafluoroethane and 1,2,2,2-tetrafluoroethane, are shown with 0.00 "ozone impacts". As explained on page 14 of Applicant's specification, the "ozone impact" for trichlorofluoromethane (CFCl_3) Green's third preferred chlorofluorocarbon had been set at 1.0.

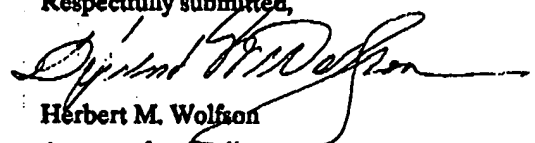
b. The use of 50-98 weight percent Green's preferred chlorofluorocarbons as required in his patent would yield a composition having an ozone depletion potential of at least 0.025, i.e. one-half of 0.05.

c. Applicant's composition which consists essentially of a major amount of pentafluoroethane or tetrafluoroethane would display an ozone depletion potential of less than 0.025. Applicant's claims have been amended accordingly.

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In view of the foregoing remarks when read in the light of the amended claims and the accompanying Declaration, Applicant believes that the Green reference should be withdrawn and the modestly limited claims allowed. Such actions are earnestly solicited.

Respectfully submitted,



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